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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/666,174	09/18/2003	Mallikarjun Chadalapaka	200312982-1	8720

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HEWLETT PACKARD COMPANY  
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INTELLECTUAL PROPERTY ADMINISTRATION  
FORT COLLINS, CO 80527-2400

EXAMINER
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DAILEY, THOMAS J

ART UNIT	PAPER NUMBER
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2452

NOTIFICATION DATE	DELIVERY MODE
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10/24/2008

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

JERRY.SHORMA@HP.COM  
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<b>Office Action Summary</b>	<b>Application No.</b> 10/666,174	<b>Applicant(s)</b> CHADALAPAKA, MALLIKARJUN	
	<b>Examiner</b> THOMAS J. DAILEY	<b>Art Unit</b> 2452	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 30 June 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. Claims 1-23 are pending.
2. In view of the appeal brief filed on June 30, 2008, PROSECUTION IS HEREBY REOPENED. New grounds of rejection are set forth below.
3. To avoid abandonment of the application, appellant must exercise one of the following two options:
  - (1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,
  - (2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.
4. A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below:

### ***Response to Arguments***

5. Applicant's arguments with respect to the prior art rejection of the claims have been considered but are moot in view of the new ground(s) of rejection.

6. Applicant's arguments with respect to the 35 U.S.C. 112 first paragraph rejections directed at claims 1-15 have been fully considered and are persuasive. Those rejections have been withdrawn.
7. The 35 U.S.C. 112 second paragraph of claims 1-15 have been maintained and are further elaborated on below.

***Claim Rejections - 35 USC § 112***

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
9. Claims 1-15 and 23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
10. Claim 1, recites, "*receiving* the request for the data transfer *from the first protocol*" (line 8), "*sending* a performance request corresponding to the request for a data transfer *to a third protocol*" (lines 11-12), and "sending an acknowledgement to the first protocol upon the occurrence of the event" (lines 16-17). It is unclear how a protocol, defined to one of ordinary skill in the art as a set of rules governing the format of messages that are exchanged between computers, can generate, send, or receive requests or determine what a request

contains. Protocols do not physically do anything; they are essentially a data structure.

11. Claim 1 additionally recites, “**a first protocol for initiating** a request for a data transfer” (line 8) and “**a second protocol for...**” (line 12). These are intended use limitations; language that suggests or makes optional but does not require steps to be performed or does not limit a claim to a particular structure does not limit the scope of a claim or claim limitation (intended use language being one such example). Therefore, the claims are rendered indefinite as it is unclear what, specifically, the applicant intends to claim.

12. Claim 8 recites, “**a first protocol layer for interacting** with a consumer” (line 10) and “**a second layer for...**” (line 11). These are intended use limitations; language that suggests or makes optional but does not require steps to be performed or does not limit a claim to a particular structure does not limit the scope of a claim or claim limitation (intended use language being one such example). Therefore, the claims are rendered indefinite as it is unclear what, specifically, the applicant intends to claim.

### ***Claim Rejections - 35 USC § 102***

13. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

14. Claims 1-23 are rejected under 35 U.S.C. 102(a) as being anticipated by

“Technical Overview of iSCSI extensions for RDMA (iSER) & Datamover

Architecture for iSCSI (DA),” Ko, Mike; RDMA Consortium, July 21, 2003;

accessed <[http://www.rdmaconsortium.org/home/iSER\\_DA\\_intro.pdf](http://www.rdmaconsortium.org/home/iSER_DA_intro.pdf)>, hereafter

“Ko.”

15. As to claim 1, Ko discloses an apparatus for acknowledging a data transfer, comprising:

a processor configured to transfer data according to a plurality of protocols of a protocol stack (page 3, first and second bullet points; nodes utilizing the iSCSI and iSER protocols read “a processor”) comprising:

a first protocol for initiating a request for a data transfer (page 7, fourth bullet point; “Put\_Data” reading on a data transfer request and the iSCSI protocol reading on “a first protocol”);

and a second protocol (page 7, first bullet point; iSER reading on “a second protocol”) that is adapted to:

receiving the request for the data transfer from the first protocol (page 21, bullet point 4: “When the requested data...”; Put\_Data request is passed from iSCSI layer to iSER layer);

determining whether the request for the data transfer contains a request for acknowledgement of completion of the data transfer (page 21, bullet point 5: "If requested..."; iSCSI layer may request notification of completion of write operation));

sending a performance request corresponding to the request for data transfer to a third protocol (page 25, iSER layer may send flow control messages to RDMA protocol layer to handle flow control (performance)); and

if the request for data transfer does contain a request for acknowledgement of the completion of the data transfer, setting a variable in memory to wait for an event to correspond to the completion of the request for data transfer and sending an acknowledgement to the first protocol upon the occurrence of the event (page 21, bullet points 5-8 and page 24; A-bit reads on "variable in memory to wait for an event to correspond to the completion the request).

16. As to claims 8, 16, and 22-23, they are rejected by a similar rationale set forth in claim 1's rejection.

17. As to claims 2 and 17, Ko discloses the first protocol is an internet small computer systems interface ("iSCSI") protocol (page 7).

18. As to claims 3 and 13, Ko discloses the second protocol is an internet small computer systems interface extensions for remote direct memory access ("iSER") protocol (page 7).

19. As to claims 4 and 14, Ko discloses the request for the data transfer comprises an attribute that indicates the request for acknowledgement of completion of the data transfer (page 21, bullet points 5-8 and page 24).

20. As to claim 5, Ko discloses a value of an error recovery level is notified to the second protocol from the first protocol (page 34).

21. As to claims 6 and 18, Ko discloses the third protocol is a remote direct memory access ("RDMA") protocol (page 25).

22. As to claims 7 and 19, Ko discloses the event relates to a zero length remote direct memory access ("RDMA") read completion (page 21, label bullets points 5-8).

23. As to claim 9, Ko discloses receiving the performance request that corresponds to the data exchange request (page 25).



24. As to claim 10, Ko discloses a remote direct memory access network interface card ("RNIC") that is used by the protocol stack to exchange the message between the at least one of the plurality of systems and the at least one input/output device via the network ( page 4).

25. As to claims 11 and 20, Ko discloses the message is a remote direct memory access ("RDMA") write message (page 21, label bullets points 5-8).

26. As to claim 12, Ko discloses the message is a zero length remote direct memory access ("RDMA") read message (page 21, label bullets points 5-8).

27. As to claim 15, Ko discloses the process operates according to a small computer systems interface protocol ("SCSI") (page 3).

28. As to claim 21, Ko discloses establishing an error recovery level by the first protocol to indicate the error recovery level in the request for acknowledgement of completion of the data transfer (page 21, label bullets points 5-8 and page 34).

### ***Conclusion***

29. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas J. Dailey whose telephone number is

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571-270-1246. The examiner can normally be reached on Monday thru Friday;  
9:00am - 5:00pm.

30. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached on 571-272-3964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

31. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/T. J. D./  
Examiner, Art Unit 2452

/Kenny S Lin/

Primary Examiner, Art Unit 2452

/John Follansbee/

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Supervisory Patent Examiner, Art Unit 2451